



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,412	03/19/2001	Robert S. Gammenthaler	ACI-010	2448
31814	7590	06/16/2006	EXAMINER	
SCOTT T. GRIGGS 1717 MAIN STREET SUITE 3400 DALLAS, TX 75201			ONUAKU, CHRISTOPHER O	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/812,412	Applicant(s) GAMMENTHALER, ROBERT S.	
	Examiner Christopher Onuaku	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-29 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

NOTE IDS of 1/22/03
 belongs to application No. 09/816,412
 and ~~NOT~~ 09/812,412

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/22/03 & 11/29/04</u> <u>& 5/23/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,4,6&7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Squicciarini et al (US 5,408,330) in view of Monroe (US 6,970,183).

Regarding claim 1, Squicciarini et al disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation, comprising:

- a) a video camera (see Fig.1, video camera 10; col.4, lines 38-59);
- b) a microphone (see Fig.1, portable microphone 28; col.5, lines 53-65);
- c) a display (see Fig.1 and OSD circuit 20 and monitor 14; col.5, lines 13-25);
- d) a speaker (see col.7, lines 34-45);
- e) an input for receiving status data (see Radar Unit 24; col.5, lines 13-51), here the

claimed status data include patrol speed and target speed generated by the Radar Unit 24;

wherein a base unit comprises:

f) means for receiving the output signal of the video camera (see Fig.1, system controller 18, OSD 20 and VCR 12; col.4, lines38-60 and col.5, lines 37-65);

g) a buffer and merge circuit functioning to merge the status data with the frames of video data output by the means for receiving to generate composite live video data and for buffering the resulting composite live video data (see OSD circuit 20 and System Controller 18; col.5, lines 13-51, which superimposes the target speed and patrol speed data on the video signal generated by the video camera 10, and the scene or incident and the superimposed data are recorded on the videotape by the Video Recorder 12;

h) digital video tape recorder or other removable medium recording device for recording the frames of video data and the audio data (see Video Recorder 12; col.5, lines 13-25 and col.5, line 53 to col.6, line 5);

i) local playback means for receiving the composite live video from the buffer and merge circuit and for displaying at least the video frames from the video camera along with a selected number of items of the status data on the display and for playing audio captured by the microphone on the speaker (see col.4, line 60 to col.5, line 12 and col.5, line 13 to col.6, line 25 and col.7, lines 34-45); and

j) means for controlling the base unit (see Fig.1 and system controller 18; at least col.5, line 2 to col.7, line 33).

Squicciarini et al fail to explicitly disclose an analog-to-digital converter coupled to convert audio signals from the microphone to digital signals.

Monroe discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or

step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations, comprising microphone 419 and A/D converter 406 which converts the audio signal from the microphone 419 to digital signals (see Fig.8b; col.19, line 34 to col.20, line 2). Digitizing an audio signal using A/D converter is well known to provide the desirable advantage of facilitating the compression of the digitized audio signal.

It would have been obvious to modify Squicciarini et al by realizing Squicciarini et al with an audio A/D converter, since digitizing an audio signal with an audio A/D is well known to provide the desirable advantage of facilitating the compression of the digitized audio signal.

Further, Squicciarini et al fail to explicitly disclose a compression circuit for compressing the composite live digital video stored in the buffer using any compression algorithm, and for compressing the audio data output by the analog-to-digital converter using any compression algorithm.

Monroe further disclose in Fig.8b video compressor 402 for compressing video signals and audio compressor 408 for compressing audio signals (see Fig.8b; col.19, line 34 to col.20, line 2 and col.28, lines 8-21, wherein Monroe teaches the overlaying of positional origin on an image). Compressing video and audio signals is well known to provide the desirable advantage of reducing the recording area requirement of a recording medium where the compressed video and audio signal are recorded, thereby increasing the capability of the recording medium to record more data.

It would have been to further modify Squicciarini et al by realizing Squicciarini et al with video and audio compressors, since compressing video and audio signals is well known to provide the desirable advantage of reducing the recording area requirement of a recording

medium where the compressed video and audio signal are recorded, thereby increasing the capability of the recording medium to record more data.

Regarding claim 4, Monroe further teaches wherein the video camera is an analog video camera (see col.26, lines 11-20; col.43, lines 36-53).

Regarding claim 6, Monroe further teaches wherein the video camera is a wireless video camera, and wherein the means for receiving a signal from the video camera includes a receiver for receiving and demodulating radio frequency signals from the video camera and circuitry to develop digital video data suitable for compression from the received radio frequency (see col.16, line 58 to col.17, line 29).

Regarding claim 7, Monroe further teaches wherein the microphone is a wireless microphone, and the base unit includes a receiver to receive and demodulate radio frequency signals from the wireless microphone to develop an audio signal and apply the audio signal to the analog-to-digital converter (see appliance 501 which is wireless and the microphone 512, attached to the wireless appliance 501, which is also wireless; col.20, lines 41-62).

3. Claims 2&3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Squicciarini et al in view of Monroe and further in view of Faris et al (US 6,677,858).

Regarding claims 2,3&5, Squicciarini et al and Monroe fail to explicitly disclose an anti-tampering circuit coupled to receive the compressed frames of video data and compressed audio

data and for computing a digital signature on every frame of the compressed data and for encrypting each the digital signature, tamper-proofing data and recording the encrypted digital signature data on the digital video tape recorder or other removable medium recording.

Faris et al teach a novel internet-based information system and method which enables millions of time-constrained competitions, contests or transactions, among the mass population, in a fundamentally fair and secure manner, using globally time-synchronized client sub-systems and information servers having extreme accurate client-event resolution independent of variable network latency, comprising the global sync unit, wherein the GSU encryption capabilities can be used to generate a digital signature on the combined time, location, and input data. This digital signature can later be used to verify that the data did indeed exist at that time. Additionally other tamper-proofing methods exist as shown in col.6, line 59 to col.7, line 5; col.34, line 24 to col.35, line 35; col.48, lines 7-25 and col.53, lines 38-54 and col.48, lines 7-25). With Squicciarini et al modified with Faris, it would have obvious to tamper proof the digital signature data of the frames or signals of Squicciarini et al, as taught by Faris, in order to minimize the chance of tampering with Squicciarini et al system.

Regarding claim 5, Faris et al further teach wherein the video camera is a digital video camera (see col.85, lines 49-67; col.54, lines 14-30, and col.9, line 65 to col.10, line 7).

Allowable Subject Matter

4. Claims 8-29 are allowable over the prior art of record.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarini et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation, and Monroe (US 6,970,183 discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations.,

However, Squicciarini et al and Monroe fail to explicitly disclose an apparatus comprising a video camera, a microphone, a display, an input for receiving status data , where the apparatus further comprises a base unit comprising a buffer and merge circuit functioning to merge the status data with the frames of the video data output by the means for receiving to generate composite live digital video data and for buffering the resulting composite live digital video data, and for detecting sync intervals in the frames of video data output by the means for receiving and outputting a frame signal, and for receiving at least frame number data that increments with each received frame and merging the frame number data into the composite live digital video data stream.

Regarding claim 16, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarini et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation, and Monroe (US 6,970,183) discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations.,

However, Squicciarini et al and Monroe fail to explicitly disclose an apparatus comprising a video camera, a microphone, a display, an input for receiving status data , where the apparatus further comprises a base unit comprising a buffer and merge circuit functioning to merge the status data with the frames of the video data output by the means for receiving to generate composite live digital video data and for buffering the resulting composite live digital video data, and for recognizing a sync signal in the incoming video data and outputting a frame signal, and for receiving a frame count signal and merging the frame as status data in the composite live digital video data.

Regarding claim 20, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarani et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation and Monroe (US 6,970,183) discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations.

However, Squicciarini et al Monroe fail to explicitly disclose an apparatus, where the apparatus further comprises controller means for receiving operator input and for controlling which video signal input is selected and which microphone input is selected and controlling the recorder means to record data directly from the anti-tamper means or data played back from the hard disc or to not record data at all and for controlling the hard disk to search for and playback data starting from a point designated by an operator, which can be a previously played back time or frame, and for controlling the recorder means to record the played back data from the hard disk to provide an after-the-fact recording capability.

Regarding claim 21, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarini et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation and Monroe (US 6,970,183) discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations

However, Squicciarini et al and Monroe fail to explicitly disclose a process to tamper proof digital data absent a conspiracy between more than one person holding key pairs, where the process further comprises the steps of monitoring for the occurrence of any physical or electrical phenomenon or event which would indicate the possibility that the digital data to be protected has been accessed improperly or tampered with, determining if the phenomenon or event has occurred indicating improper access or possible tampering, if so, erasing the encryption key of the first key pair and performing any suitable anti-tampering protocol such as blocking all access to the data to be protected, blocking all recording of the data to be protected or placing a notation in the data that it may have been tampered with or accessed improperly, if the phenomenon or event indicating improper access or possible tampering has not occurred,

encrypting the digital signal data using the encryption key of the first key pair which is stored in the clear in the volatile memory, and then encrypting these results with the encryption key of a third key pair.

Regarding claim 24, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarini et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation and Monroe (US 6,970,183) discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion detection, event detection and/or physical condition detection using various network configurations.

However, Squicciarini et al and Monroe fail to explicitly disclose a process to tamper proof digital data absent a conspiracy between more than one person holding key pairs, where the process further comprises the steps of encrypting the encrypting key of a first key pair belonging to a first person to be used to encrypt the digital signature data using the encryption key of a third key pair assigned to a third person and then encrypting that result with encryption key of a second key pair assigned to a second person and storing the double encrypted result in

volatile RAM, monitoring for the occurrence of any physical or electrical phenomenon or event which would indicate the possibility that the digital data to be protected has been accessed improperly or tampered with, determining if the phenomenon or event has occurred indicating improper access or possible tampering, if so, erasing the encryption key of the first key pair from the volatile memory and performing any suitable anti-tampering protocol such as blocking all access to the data to be protected, blocking all recording of the data to be protected or placing a notation in the data that it may have been tampered with or accessed improperly, if the phenomenon or event indicating improper access or possible tampering has not occurred, encrypting the digital signal data using the encryption key of the first key pair which is stored in the clear in the volatile memory.

Regarding claim 27, the invention relates to an in-car video system with inputs for one or more analog or digital video cameras, one or more of which may be wireless, including circuitry to digitize the input signals, if necessary, merge the data with system status data and compress the resulting data with any algorithm, preferably MPEG 4.

The closest references Squicciarini et al (US 5,408,330) disclose a surveillance system mounted in a law enforcement vehicle for producing a permanent record, on videotape, of a traffic violation and the incidents that occur after the traffic violator's vehicle has been stopped resulting in an arrest or citation and Monroe (US 6,970,183) discloses surveillance and monitoring systems, including a comprehensive, hybrid multimedia surveillance system based on wireless data transmission, still image and/or step video, video streaming, audio, motion

detection, event detection and/or physical condition detection using various network configurations

However, Squicciarini et al and Monroe fail to explicitly disclose a process to tamper proof digital data absent a conspiracy between more than one person holding key pairs, where the process further comprises the steps of monitoring for the occurrence of any physical or electrical phenomenon or event which would indicate the possibility that the digital data to be protected has been accessed improperly or tampered with, determining if the phenomenon or event has occurred indicating improper access or possible tampering, if so, erasing the encryption key of the second key pair and/or the third key pair from the volatile memory and performing any suitable anti-tampering protocol such as blocking all access to the data to be protected, blocking all recording of the data to be protected or placing a notation in the data that it may have been tampered with or accessed improperly, if the phenomenon or event indicating improper access or possible tampering has not occurred, encrypting the digital signature data using the encryption key of the first key pair and then encrypting the result using the encryption key of the second key pair, and then encrypting that result using the encryption key of the third key pair

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Strub et al (US 6,934,461) teach recording an event in which multiple persons participate, often simultaneously, including a portable recording unit having capabilities useful in such recording that have not previously been provided in a portable recording unit.

Lorenzetti et al (US 6,028,528) teach apparatus and method for managing and using media used for video surveillance recordings, including controlling access to and/or control of the media in order to provide a clear record of the handling of a video recording medium.

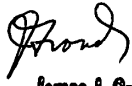
Peterson (US 4,789,904) teaches a vehicle mounted surveillance system including a camera and video recorder for use by law enforcement personnel to videotape stops for routine traffic violations.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Onuaku whose telephone number is 571-272-7379. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

COO
6/8/06.


James J. Groody
Supervisory Patent Examiner
Art Unit 262 2621